

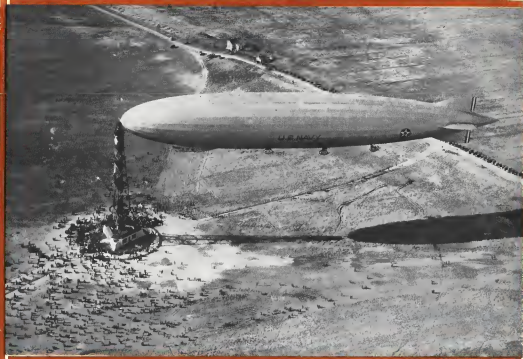
# AVIATION

*The Oldest American Aeronautical Magazine*

DECEMBER 6, 1926

Issued Weekly

PRICE 15 CENTS



The Los Angeles moored to the Ford mast at Dearborn, Mich.

VOLUME  
XXI

## SPECIAL FEATURES

NUMBER  
23

ANNUAL REPORT OF THE CHIEF OF AIR CORPS  
AMERICA AND AIR TRANSPORT  
DO AIRPLANE ENGINES COST MUCH?

GARDNER PUBLISHING CO., INC.  
HIGHLAND, N. Y.

225 FOURTH AVENUE, NEW YORK

Entered as Second-Class Matter, Nov. 22, 1920, at the Post Office, at Highland, N. Y.  
under Act of March 3, 1879.

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## Hits the Bull's Eye of Commercial Aviation

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With the approach of winter, the aviator's hazardous calling becomes even more dangerous. His motor, upon whose perfect performance his safety depends, must operate under the handicap of intense cold. And if his motor fails, his landing is made doubly dangerous by the snow, which may hide holes and irregularities of the ground.

The performance of the aeroplane motor in cold weather depends upon the quality of the fuel that is burned in it, and the oil with which it is lubricated.

The great majority of flyers in the Middle West use

### Stanolind Aviation Gasoline and Aero Oils

They have found by experience that these high quality products will bring out the best performance of the motor even under the most adverse conditions.

Stanolind Aviation Gasoline and Aero Oils are available at most leading fields throughout the Middle West. For a map showing the location of these fields, send for our Aviation Manual, which will be mailed free.

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back to the  
infancy of the art  
of aviation



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DECEMBER 6, 1936

# AVIATION

VOL. XXI NO. 23

Published every Monday

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Equipped with

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## THE SCHNEIDER CUP RACE















## Do Airplane Engines Cost Much?

Aircraft Engines at \$20.09 per Horsepower Compare Favorably with Costs in Other Fields

WHY ARE airplane engines so expensive? This is a question often asked, not only by the uninitiated but also by many aircraft manufacturers and operators. It is not enough that a weak power for an aircraft engine of high horsepower should be relatively high. However, as a basis of comparison with other internal combustion power plants such as those used in the larger automobiles, the cost of the airplane engine shows up most distinctly.

In making comparison it is necessary that the two articles being compared should either be in the same class or that there should be some fair basis of comparison.

The automobile engine may normally only two cylinders, but there are many people who compare the price of an automobile engine with the price of an airplane engine where there is no equality in either production quantity, horsepower or price.

The primary function of an automobile engine is to deliver the maximum power with the minimum weight, while embodying a maximum of dependability. Fuel economy is another important feature in the operation of an automobile engine, because low fuel consumption means that less gasoline may be carried for a given flight, and due to the fact that a saving in fuel supply results in a greater range, especially, it is most important. The goal to which all air transport engineers are heading is to maintain equipment capable of carrying the maximum payload in pounds with the minimum value depletion of engine, resulting in the minimum cost per ton and passenger mile.

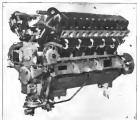
When comparing the cost of an aircraft engine with other power plants we must take into consideration the problems that must be met by the aircraft manufacturers and operators. Many of these problems that must be overcome by the airplane engine manufacturers are not considered obstacles in the building of other types of gasoline engines, and yet, on a basis of cost per rated horsepower output, the aircraft engine compares well favorably.

A preliminary comparison may be made of the costs demanded and required by airplane engines as against similar service in the high powered automobile field. A ground motor purchased for a car is usually required after 20,000 miles of use and a useful period of operation seldom exceeds more than 50,000 miles. In fact, a car that has been driven over 50,000 miles becomes somewhat of a curio, perhaps in some high class car.

In a modern six-cylinder aircraft engine the period of service before the first overhaul can safely be taken at 250 to 300 hours, or 100 to 150 m.p.h., after 25,000 miles have been covered. Quite a number of six-cylinder airplane engines are built for 300 to 350 hours, 30,000 miles, and here and there we find those that have run over 50,000 miles before an overhaul was required.

The useful life of an engine, depending of course on reasonable operating use, should be in the neighborhood of 100 to 1200 hrs. or 50,000 to 100,000 miles of service. The figures used above are by no means exceptional, as many aircraft power plants have shown such a service record and in some cases have even exceeded it. So, from the standpoint of miles of service the airplane engine compares most favorably.

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The Curtiss D-12 engine, 315-400 hp.

The comparison of cost per horsepower on the rated output of various types of power plants is most revealing. Most aircraft engines are built without cost regard to weight and are usually extremely heavy for the power delivered. Even so, relatively little horsepower, when an airplane engine, weight and size are of the utmost importance, and, as a result, no satisfactory engine would be of much value in



The Packard 1A-150 300 hp. engine

a horsepower-for-weight unit. On the other hand, stationary engines are expected to run for long periods of time, a quality in common with airplane engines. A good, high speed stationary engine, using gasoline as fuel, costs around \$100 per horsepower, and a 20 hp. engine having engine costs only \$400 per horsepower. While engine diesel jet engines require less big horsepower, nevertheless in jet, their costs are increasing far more rapidly. A good piston engine costs around



The biplane, about 1000 ft. long and 100 ft. high, is the first of a new type of aircraft, the biplane, which is being developed by the Navy. It is a biplane, but it is not a biplane in the usual sense of the word. It is a biplane, but it is not a biplane in the usual sense of the word. It is a biplane, but it is not a biplane in the usual sense of the word.

## NITRO-VALSPAR

*Serves the Flying Generals*

FLASHING blue across the sky, the two special Douglas observation planes recently built for the personal use of Major General Mason M. Patrick, Chief of the Air Corps, and Brigadier General James K. Fichter, are worthy of the service for which they were designed.

In keeping with modern ideas of construction and equipment, the Douglas Company chose Nitro-Valspar, the Valmetron all-weather finish to protect the surfaces of these splendid ships.

Nitro-Valspar is Valmetron & Company's latest contribution to the aviation industry. It is an ideal finish for airplanes where spray equipment is available. It combines great durability, absolute water, proofness and light weight with speed and ease of application. All costs are spread on nitrocellulose materials that dry in a few minutes. For further information write the Valmetron Service Department, 456 Fourth Ave., New York, N. Y.



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\$30 per horsepower for the engine alone. The diesel type engines, using heavy oil, costs around \$90 to \$400 per horsepower and the semi-diesels, using 28 hp to 58 hp, still at the same price—\$400 per horsepower.

Internal combustion engines for marine use have been on the market for over a quarter of a century and they have not been completely adapted to the service for which they are intended. They are expected to give long service but are not usually called on to operate at full or nearly full power for long periods at sea without repairs. The stoppage of a marine engine is inconvenient but not seriously dangerous. The same statement cannot well be applied to airplane engines and the nature of the latter here is extreme much more severe than its own factors of the marine power plants.

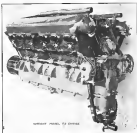
#### Marine Engine Comparisons

A well-known eight-cylinder, 280 hp marine engine capable of 2,500 r.p.m. is sold at \$50.75 per horsepower, and a six-cylinder 200 hp marine engine at the same make sells for \$28.50 per horsepower. Both the eight-cylinder and six-cylinder types of marine power plants are sold at \$33.75 per horsepower. There are many types of marine engines on the market and it is most curious that has been found that the price per horsepower is approximately twice, often three or four. The cost per horsepower of outboard engines for marine service is of some interest in making a general comparison. The standard half-horsepower model of one of the largest manufacturers sells for \$147 per horsepower, while the six-horsepower engine of the same make costs \$12.50 per horsepower.



The Pratt and Whitney Wasp engine, 400 hp.

When taken on the basis of cost per horsepower output, the automobile engine, with all the standardization, mass production and labor-saving devices developed, is, in some cases, more expensive per horsepower than an airplane engine! On the basis of the figures compiled, we find that a 200 hp automobile engine would cost \$1,700 or about \$200 per horsepower. Automobile engines are the most common examples of internal combustion engines in use today, and it is reasonable to understand why airplane engines are equipped with three times frequently. In making a comparison



The Wright Tornado engine.

to one of further comparison, one of the best of the "right-cylinder, v-type" automobile engines costs \$38.20 per horsepower on the rating of the R & A, at 36.4 horsepower. According to the manufacturers rating, this engine is capable of much higher horsepower than the R & A, rating, so it is possible to run it up to over 3,500 r.p.m. Even at this peak of 58 hp, the price is \$33.75 per horsepower.

Based on the comparison figures so far supplied, it may be seen that an airplane engine at the approximate cost of 120 per horsepower is not uncommon. On the other hand, these airplane power plants are built to withstand far greater stresses than are the other engines. It is no longer unusual to hear that an airplane engine has passed a 50 lb continuous run test at 5,000 r.p.m., or at an average speed of 1,800 to 2,100 r.p.m. In fact, in many cases, new engines for aircraft are subjected to the most rigid tests and inspection including three full-throttle 50 lb endurance runs. Automobile owners know that their engines run their motors at full speed for 50 lb without encountering some difficulty.

Labor saving devices, quantity production and standardization have done much to reduce the price of automobile engines, but the aircraft engine manufacturers have had neither the benefit of highly expensive, specially built labor saving machinery, quantity production or standardization, and yet this branch of the industry has made tremendous steps in the development of reliable, economical and moderately priced power units.

#### Mexico to Have Air Police

Mexico may establish an air service to detect smuggling along the Mexican-United States border, according to a report from the Department of Commerce. The Secretary of Defense is preparing to present to the Secretary of the Interior of Mexico plans for the acquisition of these planes equipped with machine guns and bombing apparatus.



BOHN Ring True Steel Back Babbit bearings were especially designed in cooperation with the Airplane Industry for duty in airplane engines.

**BOHN ALUMINUM & BRASS CORPORATION**  
EAST GRAND BOULEVARD, DETROIT

### The Navy PN-10 Flight

The proposed flight of the two Navy P-50s, from Hampton Roads, Va., to Ocala, Fla., started Nov. 23, when Lt. C. J. Chasell, U.S.N., in command of plane No. 1, topped off from the Naval Air Station, at 1:18 p.m., and Cmdr. H. R. Bartlett, U.S.N., in plane No. 2, followed seven minutes later.

The non-stop flight was planned as an endurance test. Six Navy ships patrolled the route at intervals. Each ship was equipped for repair work and carried gasoline and oil to replenish the aircraft's fuel tanks, if necessary.

The PS-40 No. 1 covered, handle Laminated Corvett, Sides R. Pope, pilot, and John E. Roe, radio operator. In addition to Commander Barrett, the PS-18 No. 2 covered Lt. Col. H. C. Noddi, Lieut. C. H. Schildman, and Majors W. H. Bate Charles J. Butler.

The F8U planes are lightest tractor-bus airplanes, with two 500-hp engines each. They are 32 ft. in wing span, 49 ft. in length and 16½ ft. in height. They were equipped with radio sets having a daylight range of from 200 to 300 miles, and a

They were built and equipped at the Astorville Factory, Philadelphia Navy Yard.

The Navy PN 105 happened in the night in Colon, Panama.

A few minutes after the planes were reported at this position, word was received that Commander Barthel's plane, the

FN-30 had been forced down at Nouvres, Germany, on the North Coast of the Isle of France, and the FN-30 No. 1 was missing. Commander Bartlett, of FN-30 No. 2, reported his trouble as caused by a shortage of lubricating oil, and was arranging to resume his flight when it was called off, pending a search for Lieutenant Connolly's plane, which had been missing eleven hours before it was located by the rescue Chini-

Upon receiving word that the FN-30 No. 1 was missing, the Navy Department ordered twenty-four warships to conduct a search, while vessels were rushed from Nicaragua, Cuba, Honduras, Florida and the Canal Zone.

The PS-18 No. 1 was found at 9:38 a.m., having been forced down by a fireball scorching red on its starboard side. Lieutenant Commander Shortt spent Nov. 25 musing and preparing for the resumption of the fight. The PS-18 No. 1 was towed to Gustavus Bar for repairs.

At 6:05 a.m., N. 28, the PM 30 Ns 2 bugged all from Sigman Base, site of Puma, and after eleven hours thirty-six minutes of continuous flight, landed at Cienega, Chiriquí, Costa Rica, at 5:00 p.m. At 3:25 p.m., the airplane tender Swan, 120 miles from Costa Rica, reported the plane passing over at a heavy altitude. At 3:40 a radio message from the plane said the Puma requested to land at 5:25 and would like to be landed out immediately. Two SR-71 planes, both the base at 4:14 to accept the PM 30 Ns 2, came off the base.

Thirty miles from Colón, the F5-39 Na-2 reached peak of the 10th of Grande about 5:30 a.m. During this stretch of the flight, weather conditions were favorable, except for the storm which assumed during the last hundred miles. An average speed of 35 mph. was maintained and an average altitude of 1,000 ft. The radio and compass worked perfectly.

### German Super-Zeppelin Under Construction

Dispatches state that the construction of Germany's new Super-Beppeko is progressing rapidly. Dr. Hugo Kadenat, who is supervising the construction, and who will command the ship when it is completed, has partially disclosed the secrets of the new machine, which will be matched.

According to Dr. Eckman, the power will be supplied by the 400 hp. Maybach engine, specially designed to burn a fuel known as synthesized hydrogen, with the chemical formula  $\text{CH}_4$ . It is claimed this fuel is lighter and more efficient than other, gasoline or kerosene. When exploded in the cylinders, one of the products of this fuel is a water vapor, which, passing through the exhausts, condenses in tanks, permitting better and safer conditions for the engine's operation.

The exhaust water will compensate for the loss of weight from fuel consumption and will dispense with the necessity for venting vehicles taking gas when ascending to high altitudes. The use of this carbonated hydrogen gas fuel will cut down to thirty five per cent the weight allowance for fuel and will correspondingly increase the useful load carried by the ship.



*A way showing the progress made by the Navy PNIO campaign in the 1980s to Colon, Panama.*



The two PW (D engines) from *Sanford* (461500-300 hp engines) at the *Phoenix* flight before leaving the *Naval Aircraft Factory*, Philadelphia, Pa.



Seattle, Washington

# Sir Alan Cobham in America

On Thursday, Nov. 25, Sir Alan Cobham, the well known British long-distance pilot, and Lady Cobham arrived in this country from England to board the U.S. Government Air Station boat, during which Sir Alan will describe his numerous flights and experiences.



Sir Alan Cobham

It is believed that at the same time that the Cobhams were making the United States—a de Havilland Swift airplane (Cobham, 12 hp engine) was being sent to this country, one owned by Kenneth B. Wallis, of Philadelphia. It was, therefore, planned that Sir Alan Cobham and Lady Cobham should have the honor of receiving it and fly in it to the North Atlantic. While the Swift is, in its original form, a land plane, it was, in this instance, equipped with pontoons and was landed near the bow of the Humber in the harbor of the water from which the Swift was to have been made. The water, however, was relatively shallow and it was found impossible to take the Swift ashore, in spite of her



Kenneth B. Wallis's DH Swift (Cobham 12 hp)

excellent flying qualities and the fact that her engine was functioning properly.

Sir Alan and Lady Cobham, therefore, were obliged to arrive at the Battery by motor launch, leaving the DH Swift. They were met by a reception committee at the International Chamber of Commerce headed by Mayor Lauder D. Gardner and including Samuel S. Bradley, C. M. Eddy, Otto Praeger, and W. L. Lefferts. Kenneth B. Wallis was also at the Battery to meet the Cobhams, together with Capt. Christopher, who, together, placed to fly the Swift in Miller Field.

# Broad Gage Advertising

The first of four new and advertisements appeared in the last issue of AVIATION. In this series, the president of a company producing a commercial plane, which has proved to be one of the best in its class, describes the first three advertisements to the north of marketing manufacturers. In the fourth he explains the thought that his own company will receive that also of the business created by other good planes which the confidence of his own product was warranted.

The advertiser's theory, which AVIATION believes in the light of it, is that each sale of a reliable commercial plane brings across the day when airplane traffic will occupy the place in our transportation system which has always been occupied by the most rapid and reliable.

Conclude, nevertheless, a number of standard aircraft, a well tested community of interest among the many thousands of commercial plane-owners will establish planes of modern business should be more a part of the mode of the aircraft manufacturers than in the past.

Then, we take it, in the hands of J. Don Alexander, president of Alexander Aircraft Co., whose airplane appears under the advertisement mentioned. It is not that Alexander feels will eventually speak for itself, but for all the rapid results mentioned in the advertisement of flying in the United States.

# Professor von Karmann's Lectures

The David Goodenough Fund for the Promotion of Aeronautics, Inc., has arranged a series of lectures by Professor von Karmann on the Modern Development of Aerodynamic Theory, at the New Museum Building, 11th and 12th Streets, R. W. Washington, D. C.

The first of these was held Dec. 2 and covered the last of Air Resistance. The second, held Dec. 4, was devoted to Boundary Layer and Skin Friction.



Prof. von Karmann

The balance of the schedule is as follows: Dec. 6, 12:00 a.m., Theory of Lift; Dec. 14, 10:00 a.m., Theory of Drag; Dec. 15, 10:00 a.m., Theory of Induced Drag; Dec. 15, 10:00 a.m., Simplified Theory of Air Service.

# Japanese Air Mail Starts

On Oct. 9 regular air mail service was inaugurated between Osaka, Kyoto and Shanghai, China. The service under the same name as Japanese domestic and construction and was composed with German engines of 300 hp.

# Need we say more?

NEW YORK HERALD TRIBUNE BOOKS, SUNDAY, NOVEMBER 7, 1926

### Winged Books

**CONQUERING THE AIR: THE REMARKS OF THE DUFEY, BEYOND THE GATE OF AERIALITY**  
By Lord Dunsany  
New York: The World Press Company, Inc.

**AVIATION AND AIRCRAFT: AN INTRODUCTION TO AERONAUTICS**  
By Henry H. Arnold  
New York: The World Press Company, Inc.

**TRANSPORT AVIATION**  
By Donald H. Black  
New York: The World Press Company, Inc.

**TRANSPORT AVIATION**  
By Donald H. Black  
New York: The World Press Company, Inc.

### Which Open Only at the

**The Chapter Headings**

Introduction  
Scope and Conditions of Air Transport  
Air Transport in Foreign Countries  
Air Transport in the United States  
Factors Governing the Development of Air Routes  
Possibilities of the Airplane in Transport  
Influence of Design Upon Operating Costs  
Engines for Transport Airplanes  
General Requirements of Transport Airplanes  
The Design of Passenger Airplanes  
The Design of Freight and Mail Airplanes  
Airways and Landing Fields  
Landing Field and Maintenance Equipment  
The Cost of Maintaining Engines in Air Transport  
The Cost of Maintaining Transport Airplanes  
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## Side Slips

By ROBERT H. GARDNER

The news tells of a mysterious crash being built in England for experimental flights to India and elsewhere. From the article, we read the ship will accommodate a headwind gust, will be 250 ft. long and will have a lounge and a living room and "submarine capable of moving on sea currents." This report is somewhat disappointing as we suspected that the balloons would be at least large enough to serve a cross ocean class. We think this provision should be made even if it results in adding another thirty feet to the ship.

The reporter tells us, too, that the ship will have two decks connected by an electric elevator. For some reason, having an elevator to assist in getting one's flight records to a hotel in New Orleans having a roof garden is much to be desired. This provision will require in two miles away from the hotel and is elevated about two feet from the ground.

It seems that quite an air of secrecy is being thrown about the ship and when it was projected by the Dominion Province in London for the Imperial Conference, "even their wives and daughters the secrets of its construction and flying machines." Having been heard to say that after this ship was used to show down all the secrets of the machinery in a gas works, spanning mill or boiler factory, and having observed the most subtle and brilliant look in the eyes of outsiders to whom we are demonstrating the secrets of aerodynamic machinery, we'll bet that the Dominion Province was able to get a fairly good idea of the secrets of the secrets of the machinery that we heard them.

Something is not so bad as an account of a ship in America as it may have seemed lately. The French are here today.

our airplanes speed and altitude records and the Italian may have taken our top and airplane speed record—let all to not lost as yet. We still have the first sea electric atom to have been delivered by airplane.

The eleven-year-old New York law who wrote to the Secretary of the Navy regarding better air defense, was recently awarded by being taken for a ride by a prominent delivery pilot. We hope that this might help will approach how lucky he is. Most of the other critics of our air services have been awarded with "rides" which weren't quite so pleasant as first ones of the satisfactory conditions are still waiting to be.

Recently we had an opportunity of observing some machines being tested in one of the large eastern airplane factories, and while we hesitate about making this subject too technical and scientific in its discussion, we think these particular tests are interesting enough in nature. When one material is subjected to this manner for test, the Assistant Chief Engineer, who writes possibly a hundred and thirty papers, then it is possible his desk and pen are at the end of the line. Then it goes to a man in charge of materials and materials, who becomes a banner from the nearest warehouse and spends half an hour or so trying to locate the material into some other class than the original one. Unfortunately, neither both of these tests, the new material is placed in the shop room, and the company continues to use the same materials as before.

Of course, it may have been an error on the part of the "radio" man, but we make no effort to add full credit to the office of a large New York newspaper for recommending something which, besides, cannot be made. For one of his papers recently had an editorial article in large headlines as the front page, and on another article, carefully reported in all daily papers, some advertising in the fifth page.

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## AIRPORTS AND AIRWAYS

## Boston, Mass.

By David Haddock

Never has this city seen as much ground work going on for the sake of transportation by air. Proposals involving the moving back of the Airport terminal to a new site and the development of the Boston ground and the leveling off and widening of the whole Airport area for a flying field, in the major movement and is backed by all the different air organizations and associations of the city.

The Chamber of Commerce may be able to come in the course of eight days by spending the \$1,000 left over from the Airport funds of 1933 to run a whole light and power line to the general language for which the Army and National Guard will accept their equipment. A subcommittee of the Chamber of Commerce Airport Committee, consisting of Robert F. Palmer, chairman, Frank W. Merrill, and Geoffrey E. Cabot, has been opened to meet with representatives of the Municipal Air Board, the Department of Public Works, the Edison Illuminating Company, and the War Department to complete the details and report very soon.

There is no difficulty with Airport management in the case of the operations of the field are concerned. The present arrangement is perfect. The Army, through the Airport commander, operates the field. But the airport is open to all commercial, military, civil, and private traffic, on equal terms subject to the reasonable and necessary safety control by the Airport commander.

However, it is impossible to develop the airport as it must be developed without a consolidation of interests there. To-

day the State owns the land and leases to the Federal government which operates the runway. The city simply holds on. Last year the state refused to provide funds for repairing the runways and extending them. The city gave \$10,000. Yet the city has no legal right to spend money without a special legislative act.

The problem is this. The three great whole areas owned by flying field. They do not own where the State or Boston owns the land the field is on. The Government should run the field as they do now. But will it be easier to have the State spend the money to make a new flying field there suitable for more than one plane to land on a time? Or is it easier to get the State to sell it for a national use, or less at far a larger time of even in the City, so Boston can spend the money to develop it?

Obviously the latter course is preferable. Airports are community assets, not as business are. Yet an airport like that of Boston is a State asset too, as the Boston harbor is.

This problem is concerning the groups named above and some definite program may be expected within a few weeks. Sixty-mile an airport is planned by the Massachusetts American Legion Auxiliary committee of which Capt. H. F. Baynes, D.S.C. is active chairman. This committee held its first meeting recently without publicity. Capt. A. Bernard Brooks, D.S.C. and an official War Air use with the Department of Commerce, has just completed an extensive survey of the Boston-New York route and is working on the scheme plans for Boston-Albany, Boston-Washington, and the Massachusetts Airport plan for the American Legion. He-

## A FOKKER Reliability Tour

Commander Fred's FOKKER TRIMOTOR, also completing the 1935 Ford Reliability Tour with a perfect score, flying approximately 15,000 miles between various cities, from New York to Cuba and return and then to the North Pole, has just completed a tour of 8,500 miles around the United States. 45 cities were visited on the trip from New York to San Diego via Chicago and San Francisco, returning to New York via New Orleans and Pensacola, Fla. Flying easily in schedule, the trip was completed in 46 days.

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made his preliminary report at the Senate committee's meeting this week.

Washington Irving Ballou helped himself to the contents of Colonel Air Transport's first time-outed Federal transportation magazine when flying over New York City on a demonstration flight last week. The new plane is a modification of the Ford Polar plane but looks much the same. The pilot's outfit has been scaled down giving more room.

The plane will come to Boston on Dec. 7 and 8 carrying Gen. John F. O'Brien, who is to be the guest of the Boston Clubber of Commerce. At that time, Ballou will leave with his immediate air plane in to be in regular scheduled operation.

Colonel intends to bid for the Chicago-New York mail contract. This will be opened Jan. 15, 1927. With or less, Colonel expects to fly New York to Chicago via the southern route, Albany and the Lakes. If they get the contract they will try to have the route run north to avoid the Presidential committee will be to include the great ————- of their northern route. If they do not get the contract they will offer to carry mail on their transport route.

#### Chicago, Ill.

By One Kilo

In spite of the approaching holiday season, the Illinois Airplane Company continues to stroll steadily. There are at present thirty-one students at the company's flying school, and instruction is being given every day in the week. Clifford Condit, who has been chief instructor for the past year, is leaving, however, and B. C. G. Condit, who has been flying a plane of his own at the South Side, is taking his place. Albert Meyer also students for the Illinois Company.

R. E. Smith, president of the Illinois Airplane Company has left for the South after six months of service.

The Chicago Aeronautical Society, who have been very active in the movement field during the year, are now conducting their flying school. Ed Loeb, who has been a pilot in this part of the country, is chief instructor. This company has a number

of the airplanes and is well equipped to teach flying.

William Mast flew his Outlook to St. Charles a few days ago, but was forced to land in a plowed field, much to the amusement of the nearby farmer who will undoubtedly charge him dollars for the use of his team of horses. Wonder why the N. A. A., his association club, doesn't provide free towing service for stranded airplanes?

#### White Hall, Hudson Falls, N. Y.

Relph Price, Leon Deacon and Gordon Gourdeau have been very busy, working on the Jolly they have been building. These two and purchased another Jolly which they will install this winter. They are staying via Rochester Standard and TM Book. Via two goes to Florida after a very successful season carrying passengers, doing photography and advertising work and giving flying instruction.

Leon Deacon is thinking of buying an OX-6 Aeromarine. Several others around here are contemplating buying planes in that flying activities should be booming around here and around.

#### Casper, Wyo.

The Power Drive Flying Club, which was recently organized, has divided its membership into four classes: resident, resident associate, non-resident, and non-resident-associate members. To be a resident member, one must be a qualified pilot.

There are now under way for the erection of a hangar and club house on the Wyoming Airways, Inc. field, on the Salt Creek Highway. The club house will be used as an air station by making Army officers and pilots and will provide a meeting place for those taking lecture courses and learning such in the winter school.

The main purpose for the formation of the flying club at this time is to have a working association to present plans and proposed activities to members of the state legislature, in order to impress them with the importance of aviation to Wyoming.

The twenty-eight charter members of the club are: J. T. Smith, Mayor of Casper, A. R. Kellogg, J. Don Alexander, C. A. Clark, J. M. Cole, Geo. Anderson, R. C. Delgado, E. C. Adams, H. D. Lerner, Don Phillips, H. B. Wrenn, Walter Shum, Bob Lefebvre, William Gater, R. V. Orsini, Jack Brown, H. L. Cooper, C. R. Allen, B. F. Kermey, John Walker, R. Richard Johnson, E. W. Henderson, Frank Baker, Jack Smith, Assistant Commander, H. C. Parent and Mike Williams.

On November 28 the club staged an air race at the Wyoming Airways, the field which marked the beginning of their aviation activities. There were six landing places, three Army planes from Denver, two commercial planes from Denver and one commercial plane from Wichita.

Leon Paul Verney, pilot of an Euclyptus, was first place in the preliminary landing competition event and also received the highest award for stunt flying. The Blackhawk landed inside the 100 ft. circle within 18 ft. of the center. Lord Don Kerne, of the Colorado Standard, was in an Army plane, around around plane, making his descent within 45 ft. of the center. Lord Louis W. Ock, also pilot of an Army plane, came within 15 ft. of the center, making third place.

John Ock, in a Yonah Air, was the 12th and final-place pilot, making the distance in 7 min. 45 sec. Lieutenant Verney took second place in this race. He took home a car, 24 sec. Lord Ock, of the Colorado Standard, landed third, in 8 min. 12 sec.

A. R. Kellogg, of the Alexander Aircraft Co., of Denver, and Walter Booth, of the Tatum Air Mfg. Co., Inc., of Wichita, were ground crew during the air race.

Capt. Arthur F. Harold, commander at Walnut Field, Salt Lake City, carried passengers during the morning and afternoon and "Don-Bird" Deacon entertained the four thousand on-lookers by a parachute jump from Dick Lefebvre's plane which was just in altitude of 2,000 ft.

During the morning there was an informal reception at the home of Walter Smith for visiting officers and other out-of-town guests. (Continued on Page 972)



James Weston, whom pilot, who recently landed Walnut Field, after making the country by air. He did not make his appearance before flying.

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(Continued from Page 972)

Augmenting this are four all to the squadron from the Reading Fleet and formidable array of Air Corps machines that the Army will utilize.

First appeared plans for the Battle Fleet for the first six months of the new calendar year provide for its base on San Pedro from Jan. 1 to Feb. 1, holding anti-aircraft gunnery, base range battle and night battle practice and naval aviation exercises. On the latter date vacate the entire fleet only for the Coast Zone holding fleet tactics on trade and service May 4. Joint Army and Navy exercises of a nature seldom meeting in strength on the Army division will be held there and on May 10 the fleet will sail for Guantanamo for the fleet concentration.

#### Marine Designations Changed

Changes in the designations of the principal two Marine aviation units have been announced by the Marine Corps Headquarters.

Under the order, the aircraft unit stationed at the Marine Detachment at Quantico, Va., which heretofore has been known as the First Aviation Group, now Regt. 1, is to be called Aircraft Squadron, First Coast Expeditionary Force.

The unit at the Naval Air Station at San Diego, Cal., heretofore called the Second Aviation Group, is designated Aircraft Squadron, West Coast Expeditionary Force, after Regt. 1.

#### Army Air Orders

See David Benjamin Robert Poligot, Jr., Air Corps Regt., Brooks Field, in Atlanta, Ga., to report to inactive status.

Following officers of the Air Corps Regt., at Brooks Field, to their homes in accordance with their status upon arrival: See Lester Charles Stark (major), Palo Alto, Cal. and Arthur Edward Leland (lieutenant), West.

Following officers, Air Corps, who leave further duty and training of the Air Corps Post, Biggs Field, Brooks Field, and are attached to Second Division for duty: See Lewis John D. Taylor, Norvell E. Webb, William S. Hunsinger.

First Lieut. John E. Lyman, Air Corps, Bolling Field, in Washington.

See David Kenneth Roberts, Air Corps, Langley Field, in Washington.

#### Navy Air Orders

Lieut. Arthur S. Williams det. New Air Sta., Pensacola, to U.S.S. Pennsylvania (VO Regt. One) Aerial Station, Battle Fleet.

Lieut. William J. Walker det. U.S.S. Pennsylvania (VO Regt. One), Aerial Station, Battle Fleet, to U.S.S. West Virginia.

Lieut. [?] John L. Pratt det. U.S.S. Falgout, to New Air Sta., Pensacola.

Lieut. Leslie C. Stevens det. U.S.S. Langley, to War Department (1st) Fleet, to U.S.S. Pennsylvania, to temporary duty, U.S.S. Chesapeake.

Ensign Albert Hendry det. U.S.S. Idaho, to temporary duty New Air Sta., Pensacola.

Ensign Robert King det. New Air Sta., Pensacola, to U.S.S. Wright.

Lieut. Clarence A. MacViney det. New York Sta., New York, to U.S.S. Fleet, 2d, Aircraft Regt., San Francisco.

Lieut. Morris P. Higgins det. New Air Sta., Pensacola, to U.S.S. New York.

Lieut. Ross H. Davis det. U.S.S. Wright to New Air Sta., Pensacola.

Lieut. [?] Charles W. Crawford det. VS Regt. One, Aerial Station, Battle Fleet, to New Air Sta., Pensacola.

Lieut. Charles E. Fazio det. New Air Sta., Submarine, N. J., to U.S.S. New America.

Lieut. [?] John H. Johnson det. VS Regt. One, Aircraft Station, Battle Fleet, to New Air Sta., Pensacola.

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